

Buildings Technology Research and Development Subcommittee

January 19, 2012

Location: 950 L'Enfant Plaza DOE

Time: 2:00-4:00 p.m.

Senior Principals	Agency/Office
William Grosshandler	DOC/NIST BTRD Co-chair
Roland Risser	DOE/EE-Buildings BTRD Co-chair
Paul Domich	BTRD Ex-Sec
Charles Iliff	AOC
Steve McKnight	NSF
Jerry Dion	DOE
Amir Roth	DOE
Alexis Abramson	DOE
Ravi Prasher	DOE/Arpa-e (telephone)
Dale Manty	EPA (telephone)
Marlene Reddoor	EPA
Timonie Hood	EPA
Kinga Porst	GSA
Patrick Fee	GSA
Alfred Cypress	HHS
Jonathan Herz	HHS
Steve McKnight	NSF
Allen Whitley	SI
Christine	USPS (telephone)

Next Meeting: April 19, 2012 2:00-4:00 PM, 950 L'Enfant Plaza DOE

Meeting Calendar:

April 19, 2012	
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Introductions: Subcommittee Co-Chair William Grosshandler (NIST) opened the monthly meeting of the Subcommittee for Buildings Technology Research and Development (BTRD) welcoming the agency representatives and thanking them for their participation. All participants provided self-introductions.

Federal Green Challenge: Marlene Reddoor provided an overview of the Federal Green Challenge (FGC). The program is part of the Sustainable Materials Management (SMM) Program in EPA's Office of Resource Conservation and Recovery. The goal is to reduce negative environmental impacts of materials use and disposal while preserving valuable resources throughout the life-cycle of materials. The SMM goal is: less energy used, more efficient use of materials, more efficient movement of goods and services, conservation of water, and reduced volume and toxicity of waste. The SMM program, in addition to the Federal Green Challenge, has the Food Recovery Challenge, Electronics Challenge, and State and Local Government Initiatives.

The Federal Green Challenge is a non-regulatory partnership to advance sustainability within the federal government. The challenge for federal facilities is to commit to a minimum 5% annual reduction in two of the six target areas (at least one must be waste, purchasing or electronics). Categories for the six target areas are defined as follows:

- Water - potable, industrial, landscaping, and agricultural,
- Waste - Recycling, composting, and landfill disposal,
- Transportation - Fleet miles, air travel, and commuting
- Electronics - Electronic Product Environmental Assessment Tool (EPEAT), power management, life span, and certified electronics recycling,
- Purchasing - paper recycled content, green cleaning, integrated pest management, and green meetings,
- Energy – renewable energy, electricity, natural gas, and fuel oil

The FGC program was developed by EPA's Pacific Northwest Office in 2008, and implemented on the West Coast in 2010. The National FGC Program was launched in 2011. Forty-four agencies have joined the 8 state pilot program. The Program provides partner support and benefits including:

- Online Toolkits
- Partner Check-In Calls
- Executive Sessions
- Peer-to-Peer Sessions
- Web Academy
- Recognition Program
- Partner Network

A defined process is established for participating entities that includes: setting goals and baselines, making progress toward goals and measuring progress, and recognizing successes.

As part of the implementation of the Challenge at the facility level, a comprehensive approach is recommended. Building relationships internally and increasing awareness is essential. Tools and planned events can increase knowledge and awareness. FGC leaders and volunteer green teams should perform research on joint projects, identify options, and create proposals for consideration. Both short and long term goals should be created and supported by management and staff. Budget requests should also be considered to support the program activities.

To date, the program has reduced over 172,000 MTCO₂e - the equivalent of the CO₂ emitted by 33,000 passenger vehicles in one year and avoided over \$1 million in costs.

Task Group Reportouts: BTRD Exec Sec Paul Domich provided a brief update on the activities of the behavioral task group and the commissioning (Cx) task group.

The Behavioral Task Group is developing a first draft whitepaper outline a general framework for introducing behavioral changes that result in significant and persistent improvements to building performance. The core writing team consists of GSA, DOE, PNNL and ORNL.

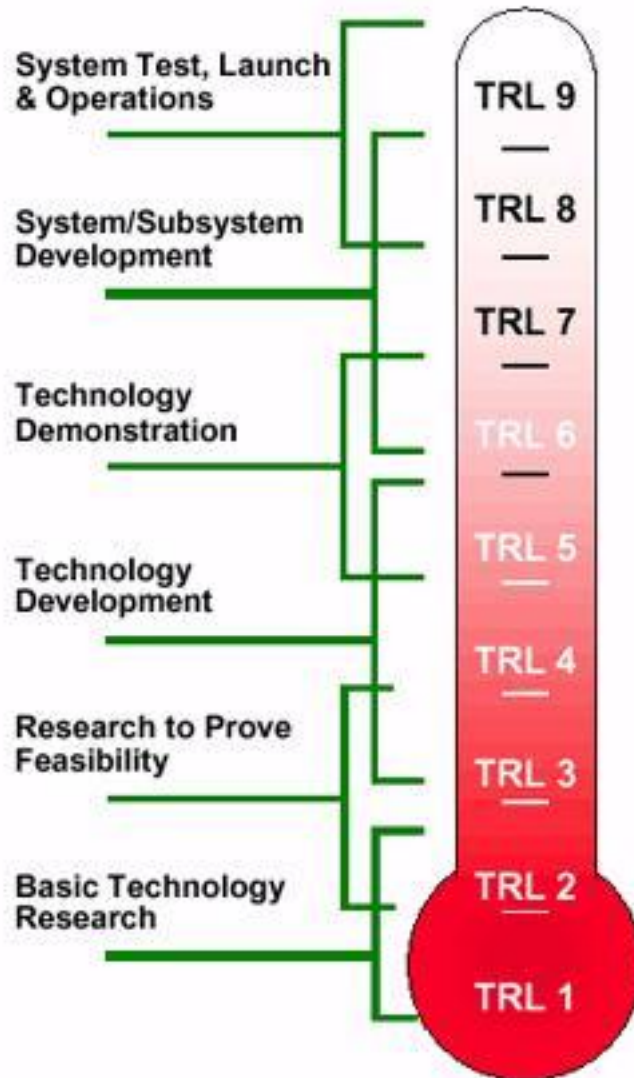
The Commissioning Task Group is finalizing a short survey that will be sent to a large number of Federal recipients involved in building O&M. This survey is being developed in partnership with FEMP's O&M Working Group. Results from the survey will inform BTRD and FEMP on current level's of knowledge and application of commissioning strategies at Federal facilities. The results will also be used to develop a short-course on commissioning planned for April 2012 in partnership with FEMP and USGBC.

Subcommittee Program Plan for 2012: BTRD Co-Chair Roland Risser (DOE) reviewed a meeting with OSTP on BTRD program activities for 2012. The outcome of the meeting was to focus on the research and development activities in the federal community. Stronger agency/departmental representation is desired from a number of R&D agencies including DOR/ARPA-e, DOD, NSF, and DHS. The BTRD made a concerted effort to engage representatives from those departments for the January meeting.

The goal for 2012 is to use the BTRD interagency forum as a vehicle to better coordinate the federal research and development activities. Technical program reviews and information sharing among the R&D agencies will leverage investments and accelerate development and deployment.

Several agencies (e.g., NSF, DOD) have extremely broad R&D activities supporting the full range of research in the general realm of building technologies. Given the breadth of the research activities, it would be helpful for

the BTRD to identify topic areas of interest to the other federal R&D agencies. Additionally, departments such as DoD use classification systems (e.g., Technology Readiness Level (TRL)) ranging from basic research (01) through test, launch, and operations (09)



This classification is used to identify appropriate R&D maturity levels for candidate R&D topics and provides a common language when discussing R&D programs.

The BTRD interagency forum would benefit from a high-level overview of this large federal R&D programs to encourage R&D acceleration, cooperation, and collaboration. A perspective on the international R&D activities would also be useful. Other multi-agency initiatives are focusing on cooperative R&D efforts including the Comprehensive Economic Development Strategy (CEDs).